tierra verde

West

A Portion of the Northwest quarter of Section 6, Township 4 North, Range 1 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona

PLANNED AREA DEVELOPMENT
Development Guide

April 14, 2006

Submitted to:
The City of Surprise
12425 West Bell Road, Suite D-100
Surprise, AZ 85374

Prepared for:
Tierra Verde Woodside, LLC
8950 S. 52nd Street
Suite 115
Tempe, AZ 85284

Prepared by:
Coe & Van Loo Consultant, Inc.
4550 North 12th Street
tierra verde

Phoenix, Arizona 85014-4291
Development Team

APPLICANT/OWNER /DEVELOPER
Tierra Verde Woodside, LLC
8950 S. 52nd Street
Suite 115
Tempe, AZ 85284
480.755.0801
480.755.0802 fax
Attn: Paul Kroff/Gene Morrison
pkroff@woodsidegroupinc.com

PLANNER/ENGINEER/SURVEYOR: Coe & Van Loo Consultants, Inc.
LANDSCAPE ARCHITECT
4550 North 12th Street
Phoenix, Arizona 85014-4291
602.285.4752
602.279.4665 fax
Attn: Dave Coble
dcoble@cvlci.com
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1.0 INTRODUCTION

1.1 Purpose of Intent

The development team of Tierra Verde Woodside, LLC seeks this opportunity to present "Tierra Verde West", an approximately two hundred and ninety five (295) single family dwelling units Planned Area Development (PAD) located at the northwest corner of Happy Valley Road and 155th Avenue (See Exhibit A – Regional Vicinity Map). The subject property has a total gross land area of approximately +88.485 Acres. The property consists of Assessors Parcel Numbers 503-55-002F, 503-55-015B, 503-55-015A (See Exhibit B – Surrounding Area Map).

The property is currently zoned R-43 and is currently designated as Suburban Residential (SR), with a density range of 1-3 dwelling units per acre in the Land Use Plan of the City of Surprise’s General Plan 2020 (See Exhibit C: Surprise General Plan 2020).

1.2 Description of Proposal

The subject property is currently an unincorporated parcel within Maricopa County. A concurrent application for annexation has been submitted to incorporate the subject property into the city limits of the City of Surprise. Likewise, a concurrent application for a Minor General Plan Amendment to secure a Land Use Designation change from Suburban to Medium Density Residential for a +49.751 Acre portion of the property has been submitted (See Appendix: Proposed Land Use and Legal Description).

"Tierra Verde West" proposes an overall gross density of approximately 3.33 dwelling units per acre. As proposed, "Tierra Verde West" will apply the design principles of the Cluster Development Concept within the property. Clustering allows for the best utilization of the specific site as it presents good ecological site planning options and basic environmental appropriateness. Open space is permanently preserved to maintain continuity of natural site features while
taking advantage of the overall quality and character of the land. As such, the integrity of the site will be preserved and respected even as the site is developed for a new use. The functional limitations of the site are protected by the designation of the open space while maintaining the essential quality or character of land.

As envisioned, “Tierra Verde West” includes a pedestrian-oriented comprehensive open space system that links its open space areas to the City, and provides interconnection to the regional open space network and community facilities. The open space areas and neighborhood park system will be delineated such that conservation features are combined into a contiguous area and integrated as components of the City’s overall interconnected community open space system.

The proposed open space system will thus support a diversity of activities, offering its future residents generous community open space areas to enhance quality of living within the development. The expansive open space system will also provide a distinctive sense of place as it is strongly related to the fundamental essence and character of the site.
As an exceptional development proposition, “Tierra Verde West” further offers value theme architecture while creating architectural continuity within the region. “Tierra Verde West” presents a viable designation while maintaining quality design features. It will preserve the suburban ambiance of the area through the careful use and planning of its land resources.

A geographic consideration of the area shows that “Tierra Verde West” lies within an unstudied Zone “A” floodplain and is traversed by three washes named: 9 East, 8 East, and 5 East. The washes inundate the site with a total run-off of 1700 cfs. The constraints inherent to the site considerably limits the use of the property and presents difficulties in developing a viable land plan under the SR scheme.

In order to make the site useable for construction of residential homes, it is necessary to implement innovative engineering and site design approaches. Perimeter channels have to be constructed on all four sides of the property boundary to handle the offsite sheet flows impacting the site. Although the entire property is not subject to Section 404 of the Clean Water Act, the 5 East wash is intended to be improved in its natural corridor. The difficult site constraints will be transformed into opportunities to increase property values by employing responsible engineering and planning approaches. Corollary to this, the preserved wash corridor will provide a buffer between density transition.

Overall, “Tierra Verde West” presents the City of Surprise with a unique development that values its naturally sensitive areas as it contributes to the regional drainage and floodplain solution along its corridors.
Significantly, "Tierra Verde West" would redound to the City's growth advantage with the applicant's intent to put in substantial upfront capitalization towards extending the City's vital water, sewer and roadway systems.

1.3 Relationship to Surrounding Properties

The subject property is currently undeveloped and is bounded on the south by the Happy Valley Road alignment. Land use in the general vicinity is typified by light residential use and vacant desert land. A planned area residential development called "Pinnacle Peak Country Estates" is located approximately a quarter of a mile at the southern vicinity of the property while "Desert Oasis", a planned area development is found approximately half a mile away at the northwest vicinity of the property.

The property lies within the City of Surprise's Special Planning Area 2 (SPA2) and is part of the primary planning area. The special planning areas are currently under great development pressure due to the remarkable strength of the residential real estate market. The special planning areas are envisioned to provide opportunities for people to live and play in close proximity.

The SPA2 is associated with significant constraints as it is traversed by large washes. Topography within the area generally exhibit slopes ranging between two to four percent and generally drains from northwest to southeast. Approximately thirty percent (30%) of the area appropriated for residential uses has been rendered unbuildable by the terrain. There are no existing multi-modal facilities within the SPA2.

"Tierra Verde West" is within close proximity to three (3) growth areas, namely: Jomax Road - Grand Avenue, Jomax Road - 163rd Avenue, and the Grand Avenue - SR 303 Growth Area. Based on current development trends, growth within the next ten years is anticipated to occur within SPA's 1, 2, and 3. The growth areas are intended to encourage and concentrate progression of future developments within the core areas to efficiently maximize resources and infrastructure, ensure a balance between jobs and housing, and promote multi-modal transportation connections (See Exhibit D - City of Surprise Growth Areas).

A scrutiny of the land profile yields an area primarily intended for residential purposes. Existing land patterns in the general vicinity are predominantly typified by light residential use and large lots developments consequent to the SR intent.
Challenged with the task of providing quality land development with high-impact results to both the immediate community and the region, "Tierra Verde West" considers the needs of a broader housing market segment and uses their preference as a tool in land planning. The proposed Community offers a balance to the regional housing market diversification while complimenting nearby employment and commercial land uses located throughout the special planning areas.

"Tierra Verde West" presents a rich opportunity for meshing a land use scheme that provides a comprehensive solution to the terrain's inherent environmental sensitivities: An MDR land use that allows for Clustering, alongside an SR outlay that respects the bounds of the City's General Plan. It is the objective of the applicant to present a most responsible solution that preserves both the natural environment while maximizing the Open Space available for the common good.

2.0 Location and Accessibility

2.1 Location

The site is a portion of Section 6, Township 4 North, Range 1 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona. The property is bound on the south by the Happy Valley Road alignment, on the east by 155th Avenue, also known as the Reems Road alignment and on the west by 159th Avenue.

2.2 Roadways and Circulation

"Tierra Verde West" enjoys strategic regional location and is served by major thoroughfares which consists of a principal arterial and three major arterial roadways. Primary regional access to the site can be gained from Grand Avenue, a principal arterial while Jomax Avenue, a major arterial will provide east-west access to the property. The Jomax Road alignment is intended to provide access from the SPAZ to the proposed SR 303. To support anticipated developments and growth within the area, 163rd Avenue has been identified as a major arterial and will provide north-south connection to the site. 163rd Avenue is intended as a scenic corridor that will afford connection from Grand Avenue to SR 74 (See Exhibit E - Transportation/Circulation Plan).
3.0 Existing Conditions

3.1 Natural Characteristics

3.1.1 Existing Land Use and Vegetation

The site is generally undeveloped but has been disturbed by man-made activities. The existing land use pattern within the vicinity of the property generally consists of residential uses. The site is typified by moderate growth of desert brush, trees, and cacti.

3.1.2 Soil Conditions

Geotechnical subsurface explorations in the general vicinity have been performed by EDR Environmental Data Resources. The subject site is in the Gunsight soil component. Surficial soils near the subject property have gravelly-sandy loam texture with moderate infiltration rates and moderately well to well-drained soils. Deeper soils (1-70 inches below surface) range from very gravelly to extremely gravelly sand, sandy loam, and coarse sandy loam textures.
3.1.3 Existing Topography

While the site is relative flat, there is a slight slope gradient of 1.5% towards the southeast. Surface elevations range from a high of approximately one thousand three hundred and ninety (1390') to a low of one thousand and three hundred and seventy (1370'). The lowest point of the site is at the south east corner of the site, along the intersection of 155th Avenue and Happy Valley Road while the highest point of the site is along the northwest portion of the property, along 159th Avenue. The site drains in a south-easterly direction with an ultimate outflow at the south-east corner of the property along 155th Avenue (See Exhibit F – Topography Map).

3.1.4 Existing Drainage Patterns

A portion of the site lies within an unstudied zone "A" floodplain area as shown in the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for Maricopa County, Arizona and incorporated Areas, Map Number 04013C1135, dated July 19, 2001.

The property is not subject to Section 404 of the Clean Water Act and as such a Section 404 permit is not required of the proposed development. A determination letter, dated August 2, 2005, was provided by The Department of the Army Corps of Engineers and is provided herein as an attachment within the appendix.
3.2 2020 General Plan Land Use and Zoning

3.2.1 Compliance with the General Plan

The property is currently designated in the Land Use Map of the City of Surprise’s General Plan as Suburban Residential, SR (See Exhibit C - City of Surprise General Plan 2020) with a target density of 1 to 3 dwelling units per acre.

The proposed approximately two hundred and ninety five (295) dwelling units residential development has an achieved density of approximately 3.33 dwelling units per acre and conforms to the land use policies of the City of Surprise. The project is consistent with the goals established by the General Plan, and will serve as a supporting residential land use.

3.2.2 Existing Zoning

The property is currently zoned as R-43. All land that directly abut the property are primarily undeveloped and are likewise unincorporated parcels and zoned R-43.

3.3 Existing Community Facilities and Services

The following community facilities and services are available to "Tierra Verde West".
3.3.1 Schools

"Tierra Verde West" is within the boundary of the Dysart Unified District No. 89. Elementary school residents of "Tierra Verde West" can receive education from the Kingswood Elementary School while high school residents can enroll at the Willow Canyon High School. Additionally, the Dysart High School facility is located at Dysart and Varney Roads, approximately nine (9) miles southeast of the property. Moreover, there is also an opportunity to take advantage of the elementary school site dedicated by the Desert Oasis-Lancer Parcel, located approximately 2.5 miles northwest of the property.

3.3.2 Parks

The residents of "Tierra Verde West" can avail of the open space and amenities contained within the Lancer and Baer Park, Baer-Wash/Wildlife and Equestrian Corridor. The White Tank Mountain Regional Park is located approximately eleven (11) miles southwest of the property. Lake Pleasant Regional Park is located approximately ten (10) miles to the northeast of the special planning area.
3.3.3 Libraries
Library services are available to the residents of "Tierra Verde West" through the Northwest Regional Library located within the Surprise Recreation Complex is to be found at North Bullard Avenue. It is approximately ten (10) miles from the property.

3.3.4 Golf Courses
The Hillcrest Public Golf Course, located at Meeker and RH Johnson Boulevards, is roughly six (6) miles from the property. There are several private golf courses within the vicinity.

3.3.5 Airports
Luke Air Force Base is located approximately thirteen (13) miles from the property while the Phoenix Sky Harbor Airport is about twenty five (25) miles away.

3.3.6 Police, Fire Protection and Ambulance Service
The Maricopa County Sheriff Office at located at 12425 W. Bell Road will respond to public safety calls of the residents of "Tierra Verde West". The City of Surprise Fire Station located at 163rd and Grand Avenue is anticipated to extend fire protection and emergency medical services to the property. Appropriate dues and annexation fees will be determined at the time formation documents are finalized.

3.3.7 Hospital
"Tierra Verde West" is in close proximity to The Del Webb Memorial Hospital located at Grand Avenue and Meeker Boulevard, approximately seven (7) miles to the property.

3.3.8 Luke Air Force Base
Luke Air Force Base is 2.5 miles south of the Surprise strip annexed areas. "Tierra Verde West" is not within the 65 LDN contour lines of the Luke Air Force Base.

3.4 Existing Infrastructure and Utilities
3.4.1 Existing Water Facilities
The City of Surprise will provide water to the property and is responsible for determining the 100-year assured water supply. There is an existing 16" water line within the right-of-way of
163rd Avenue and services "Desert Oasis", a planned area development located a quarter of a mile northwest of the property.

3.4.2 Existing Wastewater Facilities

The property is not served by any sanitary sewer collection and treatment system at this time.

3.4.3 Existing Roadway Conditions

The Happy Valley Road alignment is currently a dirt road, a portion of which currently lies within a wash. There are no paved roads that serve the site at this time.

4.0 Impacts of the Proposed Planned Area Development

4.1 Regional Benefits

The land use plan of the City of Surprise designates five (5) special planning areas (SPAs) to provide a balance in mix of land uses. The SPAs are intended to interlink and support the diverse needs of each area and are intended to provide opportunities for people to live, work, and play in close proximity.
“Tierra Verde West” lies within the City of Surprise Special Planning Area 2 (SPA2). Ninety one percent of the total SPA2 is designated as residential while commercial areas other than neighborhood commercial are excluded from the mix. SPA3 contains the major commercial facilities found along Grand Avenue. “Tierra Verde West” will serve to sustain the balance between residential, employment and commercial land uses within the planning areas. It is primed to present greater opportunities for housing choice and will support the housing requirements of a rapidly growing community. “Tierra Verde West” will positively impact the development patterns of the City of Surprise.

4.2 Community Integration

“Tierra Verde West” is designed to help realize the goals and objectives of the SPA2. Implementation of the project will result in the integration of an exceptional neighborhood that is compatible with existing and anticipated land uses in the area. “Tierra Verde West” will complement existing planned area developments found within the vicinity. “Pinnacle Peak Country Estates” is located south of “Tierra Verde West” while “Desert Oasis” is along the northwest vicinity of the property.

4.3 Environmental Impacts

“Tierra Verde West” presents comprehensive solutions for water, sewer, infrastructure and emergency services. Specific engineering design and studies have been undertaken to provide the framework for future detailed engineering design improvements. Likewise, opportunities for integrated solutions to drainage, utilities, traffic circulation, as well as improvements to the open space network are offered by the development.

Moreover, the widening and improvement of several public roadways that bound the site will consequently serve to improve and extend the roadway network and circulation system within the area.

4.4 Socioeconomic trends

“Tierra Verde West” is designed to respond to the prevailing socioeconomic trends and development pressures within the region. The City of Surprise is experiencing tremendous growth rate. The introduction of a variety of housing opportunities by “Tierra Verde West” is a definitive response to the variable market, economic and social requirements within the area.
5 Proposed Land Use and Development

5.1 Land Use Plan

The proposed land use for “Tierra Verde West” presents real strategies for a sustainable development. It reflects a comprehensive understanding of existing site conditions and constraints in a plan which benefits from the unique characteristics inherent to the site. “Tierra Verde West” will incorporate several distinct design features into its land plan to ensure long term growth of community property values. Value added amenities are provided to increase the desirability of the development. Site features such as the prominent washes that traverse the site are turned from constraints into focal points of interest.

“Tierra Verde West” proposes an overall approximate gross density of 3.33 du/ac. The proposed land uses complement the land goals and land use policies of the City of Surprise. The development consists of a total of two hundred and ninety five (295) dwelling units with a combination of 70’ x 110’ lots and 50’/40’ x 95’ Z-lots. (See Exhibit G – Land Use Tabulation Table, Exhibit H – Land Use Plan).
5.1.1 Parcel Plan

Specific designs and development of each parcel will comply with the current City of Surprise Subdivision Ordinance and the design guidelines outlined in Exhibit I – SR Single Family Residential Design Guidelines and Exhibit J – MDR Single Family Residential Design Guidelines.

Parcel 1 consists of approximately +43.50 acres and is proposed to contain approximately one hundred and twenty seven (127) 70' x 110' (minimum 7,480 sf) single family lots at a density of 2.91 du/ac.

Parcel 2 consists of approximately +44.985 acres and is proposed to contain approximately one hundred and sixty eight (168) 50' x 40' x 95' Z-lots (minimum 4,225sf) single family lots at a density of 3.73 du/ac.

5.2 Single Family Residential Criteria

The Single Family Guidelines of the City of Surprise regulates the development of low density residential (LDR) developments to ensure conformance of proposed developments to the goals, objectives and requirements adopted and contained in the General Plan of the City of Surprise. As proposed, "Tierra Verde West" fall under the Suburban Residential (SR) and Medium Density Residential (MDR) land use categories and as such is not required to obtain points listed under the Single Family Guidelines to validate its achieved lot mix and density.
"Tierra Verde West" is an exceptional community and intends to meet or exceed the purpose and objectives of the City of Surprise for residential developments. As such, the proposed development is designed to provide specific performance standards listed under the guidelines to validate its departure from conventional zoning principles as warranted by virtue of creativity, amenity, and diversity.

5.2.1 Residential Design Criteria

Specific design standards applicable to "Tierra Verde West" are scheduled in Exhibit 1 – SR Single Family Residential Design Guidelines and Exhibit J – MDR Single Family Residential Design Guidelines.

Design List B – Engineering

A. Design all corner lots so that the minimum width of each corner lot is at least 10 feet greater than the Minimum Lot Frontage applicable to that shown in line 2 of Table 1; or alternatively; Or, On all corner lots, construct an 8 foot wide landscaped tract between the property line of the lot and the abutting street right of way. Convey such landscape tracts to a homeowners association and require the association and require the association to maintain the tracts and the adjacent rights-of-way to the same standard as other tracts and common areas maintained by homeowners association.

B. Design and construct storm water retention areas which meander through the Residential Development Project as greenbelt, as opposed to constructing a series of separate and distinct basins, and require a homeowners association to maintain the retention areas to the same standard as other tracts and common areas maintained by the homeowners association.

C. Design and construct landscaped open spaces which are visible from both residential and arterial streets, and require homeowners association to maintain the landscaped open space
to the same standard as the other tracts and common areas maintained by the homeowners association.

D. Along arterial streets, provide at least 600 feet of open space per mile, as measured along the linear boundary between the Residential Development Project and the adjacent arterial street right of way. If the Residential Development Project does not abut the right of way, then the measurement shall be taken along the linear boundary between the Residential Development Project and the intervening tract. The open spaces must be visible from the arterial street, and the Developer must require a homeowner association to maintain the open spaces to the same standard as the other tracts and common areas maintained by the homeowners association.

E. Incorporate view corridors with open space areas throughout the development to take advantage of the mountain views; utilize view fences around houses abutting these view corridors so that the open space and mountain views are visible from the houses; and require a homeowners association to maintain the open space areas to the same standard as the other tracts and common areas maintained by the homeowners association.

F. Design and construct paths and trails separate from roadways, which connect all open space areas and arterial roadways, and which enable bicyclists and pedestrians to travel throughout the development.
Design List C – Architecture (SFR Home Product Design Guidelines)

A. Prohibit the same front elevation on adjoining house; prohibit the same rear elevation on more than two consecutive adjoining houses visible from an arterial street.

B. Utilize a minimum of three floor plans that incorporate, in at least two elevations, design features such as covered front entries, covered front porches, enhanced door and window details, roof overhangs, parapet walls with cap features.

C. Install at least three distinct roofing styles, including colors, textures, and component shapes, e.g. barrel tile and flat concrete tile.

D. For all houses on lots backing to an arterial street, design roof lines so as to avoid constructing a series of roof slopes, visible from the arterial street, which are all parallel with, or all perpendicular to, the arterial street.
Design List D — Amenities

A. Provide a trail system that connects all open space areas within the Residential Development Project and creates pedestrian linkages with the surrounding residential and commercial developments. Along the trail system, construct rest areas at every quarter mile, consisting of a substantial seating area which accommodates at least 4 persons and a shade area composed of an architectural shade structure, or mature landscaping such as a canopy of trees, or a combination of both. Require a homeowners association to maintain the trail system to the same standard as other common areas maintained by the homeowners association.

B. Construct and convey to a homeowners association a large open space corridor, with a minimum width of 75 feet, and an average width of 100 feet, through the Residential Development Project. The corridor must be planted with mature trees and other plants listed on the City's approved plant list, and must provide view corridors and a trail system. Lots which back up to the corridor on at least one side shall be bordered by view fences which create view corridors. The view fences may be constructed either completely of wrought iron or of wrought iron and masonry, and must comply with the City's ordinance relating to swimming pool fences. Restrict the use of the corridor to pedestrian and bicycle access by residents of the Project. Require a homeowners association to main-
tain the corridor to the same standard as other common areas maintained by the homeowners association.

C. Provide open space in excess of 10 percent of the Gross Acreage of a Residential Development Project. Require homeowners association to maintain the excess open space to the same standard as other common areas maintained by the homeowners association.

5.3 Circulation System

The proposed circulation system plan has been designed to afford a high level of internal vehicular mobility and to provide opportunities for effective modes of navigation of the site. "Tierra Verde West" includes six (6) entry nodes. Entry points are provided off Happy Valley Road, 159th Avenue and 155th Avenue and Saddlehorn Drive. The provision of multiple development entrances allows easy access to the site (See Exhibit K – Circulation Plan).

Development of the site shall include half-street improvements to ultimate width for Happy Valley Road, 159th Avenue and 155th Avenue. All public roadways will be constructed according to the minimum standards established by the City of Surprise.

An interior local street with a fifty five foot (55') public right-of-way will provide primary access points to the site. The interior local streets shall be designed to provide thirty two feet (32') of pavement from back of curb to back of curb with five feet (5') landscape area and five feet (5') wide detached sidewalks on both sides of the street. Parking will be allowed on both sides of the street. Each home will have access to at least two (2) off-street parking.

All rights-of-way shall be dedicated to the City. All roadway improvements shall be designed and built to current minimum City of Surprise roadway design standards at the time of approval of the preliminary plat.
5.4 Comprehensive Open Space and Amenity Plan

5.4.1 Master Landscape Plan / Open Space

The landscape architecture of the project will by design reinforce the southwestern theme of the development. The various elements of the landscape plan will be carefully selected to enhance the theme. The theme will be applied to features such as the entry monumentation, theme elements of the common areas, parks and open spaces.

The community and neighborhood entry monuments are designed to complement the design of the primary entry monuments and will consist of four (4') splitface concrete masonry unit, while the columns will consist of concrete masonry with cultured stone veneer.

The perimeter walls will consist of splitface concrete masonry unit with fluted CMU cap and columns. The wall color will directly complement the architecture to retain a sense of continuity.

Theme walls, fences, and picnic ramadas will consist of the same materials and designs established with the entry monuments. The plant palette will comprise of a combination of native plants. The parks and open spaces will be designed to support the theme and will include turf areas to maximize active play.

The open space tracts are strategically located to provide not only passive and active recreational facilities but will also provide significant storm water holding capacity. The proposed amenities include parks, walking trails, ramada with benches and tot lots.
5.4.2 Trails, Open Space, Parks and Recreation System

A minimum of twenty (20) acres or 22.60% of the gross residential area is reserved for open space and recreation. Careful consideration has been given to the appropriation of the open space areas in locations that will offer optimum use to future residents and add value to the community.

A trail system within the landscaped and improved open space corridors is incorporated into the land use plan to maximize utilization of the open space. The trail system corridor links the entire community by providing direct access from the individual residential lots to the various open space areas.

"Tierra Verde West" has been master planned to offer residents easy access to open space through the careful placement of open space areas. Pocket parks that offer a variety of opportunities for recreational activity are provided throughout the development. The parks are improved with turf areas, shade ramadas, play structures and trail systems (See Exhibit L1 - Master Landscape Plan).

Generous open space and landscape elements are also provided at community entryways. Entryways are enhanced by community themed features and landscaping (See Exhibits L-2 for details of entry features).
5.4.3 Signage

Signage for “Tierra Verde West” will confirm the southwestern theme of the area and will meet the requirements of the City of Surprise for signs.

5.4.4 Lighting

Provisions for outdoor lighting within the development will be designed with minimized intensity. The primary entry nodes will be provided with pole mounted lighting fixtures while the homes will be illuminated with wall mounted lighting fixtures that emit low level, non-glare lighting fixtures.

5.5 Architecture

A comprehensive palette of features will be provided to establish the framework that will reinforce the theme of “Tierra Verde West”. The overall theme for the development will be southwest in nature.

The architectural style within “Tierra Verde West” will seek to preserve and reflect the southwest character of the area. A variety of architectural design features will be incorporated into each home elevation to promote diversity (See Exhibit M Conceptual Architectural Prototypes).

A minimum of three (3) floor plans, each with a minimum of three (3) elevations will be offered within each definitive housing rice range or product type to provide a variety of housing alternatives and to increase visual interest. No two homes with the same front elevation or color scheme will be set on adjacent lots or across from each other. A variety of building materials to be offered may consist of a selection from concrete tile and parapet roof, earthen paint tones and other compatible materials.
6.0 Drainage

6.1 Existing Flood Plain Conditions

The existing topography of the Tierra Verde West project area slopes from the northwest to the southeast. The Tierra Verde West parcel is traversed by three washes. According to the Flood Insurance Rate Map (FIRM) the washes crossing the property from east to west are named: 9 East, 8 East, and 5 East. Note that washes 8 East and 9 East drain into 5 East. The majority of this flow continues east along the property boundary on the south side along the Happy Valley Road Alignment into the McMicken Dam Outlet Channel downstream of the site. An irregular berm approximately 10 feet high maximum runs co-linear with the Happy Valley Road Alignment and trains the flow to run due east. A minor portion of this flow breaches through the irregular berm and continues towards the southeast, however this appears to only occur during larger storm events. The property is located in an unstudied Zone A floodplain as shown on the enclosed FIRM – Map Number 04013C1135 F dated; July 19, 2001 (See Exhibit N – FIRM Map).

According to the Wittmann Area Drainage Master Study (WADMS) performed the by the Flood Control District of Maricopa County the Tierra Verde West project area is located in the Picacho Wash Sub-Watershed. The 100-year 24-hour flows conveyed in each channel are listed as follows:

- 5 East (DO612) – 1022 cfs
- 8 East (RP612) – 327 cfs
- 9 East (RDCP14) – 362 cfs

The channels are named by both FEMA designation and the HEC-1 card designation used in the WADMS.

6.2 Proposed Improvements and Floodplain Solution

6.2.1 Off-site storm water flows

The proposed solution will require channel improvements for the 5 East Wash, the 8 East Wash, and the 9 East Wash. The channel improvements would contain the 100-year open channel flows for each of the channels coming through the site. The proposed channels are to have side slopes of 4:1 adjacent to the lots and 6:1 adjacent to the street. The widths of the channels vary due to the flow rates intended for each corridor. Perimeter channels around the property boundary will be constructed to collect the offsite sheet flows impacting the site from the northwest. Those flows will be conveyed to the improved open channel corridors described above. Offsite discharges conveyed around the site in proposed perimeter
channels will discharge the offsite flow at its historic/existing
discharge point from the proposed (downstream) development
property line. The routed discharge will be equal to or less than the
existing discharge at the existing exit point from the proposed
downstream development boundary. The offsite drainage will be
coordinated with the FCDMC WADMS.

A Conditional Letter of Map Revision (CLOMR) will need to be filed
with the Federal Emergency Management Agency (FEMA) to request
a Letter of Map Revision (LOMR) to reclassify the flood zone
designation to Zone X on the FIRM Maps and eliminate the property
from being in a flood zone.

6.2.2 On-site Storm Water Retention

Retention/detention facilities are strategically located within common
area open space tracts throughout the proposed Tierra Verde West
Project. Retention for the on-site flow will be provided to collect the
100-year 2-hour storm. The storm water runoff produced during the
design storm will not be allowed to pond greater than 3 feet of depth
measured from the bottom of the retention basin, and the basin will
drain within 36 hours. All proposed onsite retention basins will
provide a minimum of 1-foot of freeboard and that the high water
surface elevation will be at least 1-foot below adjacent finish floor
elevations.

All drainage design will be done in accordance with the City of
Surprise ‘Preliminary and Final Drainage Report Guidelines’, the
City of Surprise Municipal Code (chapter 15 and 16), the FCDMC
hydrology and hydraulics manual(s) and the offsite drainage will be
based on the WADMS Update.

7.0 Infrastructure Improvements

7.1 Traffic Impact Analysis

A “Traffic Impact Analysis” has been prepared by TASK Engineering and
is included in this submittal.

7.2 Water Service

Water service will be provided by the City of Surprise. Dual water
systems are required, both potable and non-potable. Irrigation of all
common areas must be done with non-potable water. Service by the
City’s non-potable water system will be required, as it becomes
available.

The Project is within the City of Surprise Water Infrastructure Master
Plan study area, and is located in City of Surprise Water System
Pressure Zone #5, according to the City of Surprise Water Resources Master Plan. The City is currently expanding its water system to accommodate future growth in the area. The Project will require the installation of two or more new drinking water quality well(s) per square mile of development, with a minimum aggregate capacity of 3,000 gpm, to the City's requirements. Installation of a minimum of 1,000,000 gallons of usable Water Supply Facility Improvements will be required per square mile of development. Per the City's requirements, existing City Water Master Planned looping lines must be extended. Off-site 12 inch ductile iron looping water lines are required on north/south mile and half mile alignments. Off-site 12 inch ductile iron looping water lines are required on east/west mile alignments. Over-sized 16 inch water distribution looping lines are required on Happy Valley Road and 155th Avenue (Reems Road), and must be extended from the appropriate water supply facility. Booster pump system(s) and locations must be provided to ensure that the development will be provided with the required with the water at adequate pressure. All demands are based on the design criteria in The City of Surprise Water Resources Master Plan.

Anticipated demands for this Project are as follows:

Number of DU's = 127  (Assume 3.2 people/DU)
ADD = 43 gpm
MDD = 78 gpm
PH = 129 gpm
FF = 1500 gpm (Residential only)

See Exhibit 0 – Water

7.3 Wastewater - Sanitary Sewer

It is anticipated that wastewater service will be provided by the City of Surprise. The project is dependent on annexation of the property into the City and upon the construction of the City's Regional SPA2 Master Planned Wastewater Treatment Facility. Upfront capitalization is required for the construction. The City and the developers are working on a development agreement to fund the construction of 2.5 MGD of capacity and required interceptor sewers.
While no sewer capacity is currently available, the City's master plan does identify the Tierra Verde area. In the master plan, the project will connect at the NEC of 155th Avenue and Happy Valley Road.

Anticipated flows from this development are as follows:

- Number of DU's = 127  (Assume 3.2 people/DU)
- ADF = 40,640 gpd
- MDF = 0.73 MGD

Please see Exhibit P - Wastewater/Sanitary Sewer

8.0 Public Utilities and Services

Dry utilities such as electric, gas, telephone and cable television utilities will be placed underground within the public utility easements. The following utilities and services are available to the residents of "Tierra Verde West" through the following entities:

8.1 Electrical Services

The surrounding area is currently serviced by the Arizona Public Service-APS. There are existing power pole lines along 155th Avenue (Reems Road). There appears to be adequate service capacity for this project and the surrounding area, however, new facilities may be required as this area develops.

8.2 Natural Gas

Service will be provided by Southwest Gas Corporation.

8.3 Telephone

Communication services in the area is currently provided by Qwest Communications.

8.4 Cable TV

The area is currently serviced by Cox Communications. There are no existing cable TV manholes or junction boxes currently in place.

8.5 Water

The City of Surprise will provide potable water to "Tierra Verde West". The development will utilize reclaimed water for irrigation purposes.

8.6 Sewer

The City of Surprise will extend its sewer lines into the development.
8.7 Solid Waste (Trash)

The City of Surprise will provide service to "Tierra Verde West".

9.0 Management and Maintenance

A Homeowners Association (HOA) will be created to manage and maintain common areas and open spaces owned by the HOA. The HOA will assume maintenance responsibility for median landscaping and landscaping within public right of way adjacent to all major, minor arterial and collector roadways within the community’s boundary. Residents of "Tierra Verde West" will automatically be members of the HOA and will be required to pay annual dues for the operation and maintenance of the community facilities.

10.0 Development Schedule

"Tierra Verde West" will be constructed in one phase. Construction is anticipated to commence in the second quarter of the calendar year 2006. The ultimate development schedule is contingent upon the prevailing market and economic conditions, absorption rates and industry factors at the time of consideration.

11.0 Covenants, Conditions and Restrictions

The developer will create and record a set of Covenants, Conditions and Restrictions (CC & R's) establishing a master homeowners association (HOA) which will be responsible for the maintenance of the perimeter theme walls, signage, landscape buffers and landscaping in all common area and rights of ways.
PLANNED AREA DEVELOPMENT
DIRECTORY OF EXHIBITS

EXISTING CONDITIONS

Regional Vicinity Map  Exhibit A
Surrounding Area Map   Exhibit B
2020 Surprise General Plan  Exhibit C
Surprise Special Planning Areas- Growth Areas  Exhibit D
Transportation/Circulation Plan  Exhibit E
Topography Map  Exhibit F

PROPOSED DEVELOPMENT

Land Use Tabulation  Exhibit G
Land Use Plan   Exhibit H
Suburban SFR Design Guidelines Table  Exhibit I
Medium Density SFR Design Guidelines Table  Exhibit J
Circulation Plan  Exhibit K
Landscape Exhibits  Exhibit L
Conceptual Architecture  Exhibit M

DRAINAGE

Master Drainage Exhibits  Exhibit N

WATER SERVICE

Proposed Water Plan  Exhibit O

WASTEWATER SERVICE

Proposed Sewer Plan  Exhibit P
TIERRA VERDE West
PLANNED AREA DEVELOPMENT
2020 SURPRISE GENERAL PLAN

LAND USE PLAN

Land Use Classification
- Agricultural Reserve (6-9 Acres)
- Rural Residential (1-1.8 Acres)
- Suburban Residential (1-9 Acres)
- Low Density Residential (1-2 Acres)
- Medium Density Residential (2.5-5 Acres)
- Medium High Density Residential (6-15 Acres)
- High Density Residential (15-20 Acres)
- Residential Park
- Commercial
- Employment
- Mixed Use
- Retail
- Entertainment
- Greenbelt
- Public Open Space
- Industrial
- Open Land
- School
- Church
- Other

Street Classification
- Existing
- Proposed
- Major Arterial
- Minor Arterial
- Principal Arterial
- Minor Arterial
- Collector/Local
- Residential
- Tentative

Surprise General Plan 2020:
Imagine the Possibilities
City of Surprise, AZ
## Land Use Tabulation

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Land Area Ac.</th>
<th>Lot Size</th>
<th>Dwelling Units</th>
<th>Density du/ac</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suburban SFR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parcel 1</td>
<td>43.50</td>
<td>70' x 110'</td>
<td>127</td>
<td>2.91</td>
</tr>
<tr>
<td>Medium Density SFR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parcel 2</td>
<td>44.985</td>
<td>50'/40' x 95' Z-lots</td>
<td>168</td>
<td>3.73</td>
</tr>
<tr>
<td>Roads &amp; Open Space (included in Parcel Area)</td>
<td>20 Ac. or 22.6% of Site</td>
<td></td>
<td>295</td>
<td>3.33</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>88.485</strong></td>
<td></td>
<td><strong>295</strong></td>
<td><strong>3.33</strong></td>
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</tbody>
</table>
### Suburban Residential SFR Design Guidelines Table

<table>
<thead>
<tr>
<th>Regulations</th>
<th>Lot Category (C) Base Requirements</th>
<th>Proposed PAD Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min. Front Setback</td>
<td>12' living/18' face garage</td>
<td>10' living/18' face garage</td>
</tr>
<tr>
<td>Min. Side Yard Setbacks</td>
<td>5'/8'(^1)</td>
<td>13' aggregate(^2)</td>
</tr>
<tr>
<td>Min. Corner Side Setback</td>
<td>13' single story</td>
<td>10' single story</td>
</tr>
<tr>
<td></td>
<td>20' multi-story</td>
<td>15' multi-story</td>
</tr>
<tr>
<td>Min. Rear Setback</td>
<td>15' (^3)</td>
<td>15' (^3)</td>
</tr>
<tr>
<td>Min. Lot Frontage Req.</td>
<td>63'</td>
<td>63'</td>
</tr>
<tr>
<td>Max. House Width Permitted on Min. Lot</td>
<td>55'</td>
<td>60'</td>
</tr>
<tr>
<td>Min. Lot Size (sf)</td>
<td>7,480</td>
<td>7,480</td>
</tr>
<tr>
<td>Min. Standards from Design List A</td>
<td>All A-K required</td>
<td>All A-K Provided</td>
</tr>
<tr>
<td>Lot % Permitted w/o Incurring Adttl Performance Standards</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Max. Building Height</td>
<td>30'</td>
<td>30'</td>
</tr>
</tbody>
</table>

### Notes:

\(^1\) Encroachments into required front and side setbacks will comply with Chapter 17.28, Article II and Section 17.32.070. In the event of a conflict between the provisions of Chapter 17.28, Article II and those of Section 17.32.070, the provisions of Chapter 17.28, Article II shall apply.

\(^2\) Two adjacent multi-storey houses must be separated by not less than 10 feet, and a multi-story house and an adjacent single-story house must be separated by not less than 8 feet. If any portion of a multi-story house has only one story adjacent to the side yard property line, the single-story setback will apply.

\(^3\) Non-structural architectural features such as fireplaces, bay windows, pop-outs or patio covers may encroach into the rear setback, provided however, that a patio cover may not encroach more than ten (10') into the rear setback.
### Medium Density SFR Design Guidelines Table

#### Z-lot Parcels (40’/50’ x 95’)

<table>
<thead>
<tr>
<th>Regulations</th>
<th>Proposed PAD Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min. Front Setback</td>
<td>10’ living/18’ face garage</td>
</tr>
<tr>
<td>Side – Min. Distance b/w Bldgs.</td>
<td>10’</td>
</tr>
<tr>
<td>Min. Corner Side Setback</td>
<td>10’</td>
</tr>
<tr>
<td>Min. Rear Setback</td>
<td>15’</td>
</tr>
<tr>
<td>Min. Lot Frontage Req.</td>
<td>40’</td>
</tr>
<tr>
<td>Max. House Width Permitted on Min. Lot</td>
<td>30’</td>
</tr>
<tr>
<td>Min. Lot Size (sf)</td>
<td>4225</td>
</tr>
<tr>
<td>Average Lot Size (sf)</td>
<td>4950</td>
</tr>
<tr>
<td>Max. Building Height</td>
<td>30’</td>
</tr>
</tbody>
</table>

**Notes:**
- Side setback at corner lots include adjacent landscape tract.
Front Elevation

Scale: 1/4” = 1’-0”
APPENDIX
The applicant agrees to comply with the following stipulations:

**STIPULATIONS: GPA05-402 and PAD05-401**

a) All inconsistencies in lot counts and density calculations will need to be consistent with this staff report to be shown in this GPA document as well as the Tierra Verde West PAD document.

b) All homes will comply with the Home Product Design Guidelines and will need a Home Product Review approval prior to submission of standard plans.

c) The developer / developers shall be required to provide a minimum of two paved lanes for Happy Valley Road, east of 163rd Avenue. No building permits shall be issued for the subject project / projects prior to the City Engineer's acceptance of the Happy Valley Road improvements. Voyager and Woodside will share cost of extending Happy Valley Road to serve both properties.

d) Major changes to this P.A.D. with regard to use and intensity, must be processed as a revised application with approval by the City Council upon recommendation of the Planning and Zoning Commission. Minor changes to this P.A.D. may be administratively approved by the Community Development Director, Water Services Directory, Fire Marshal, and the City Engineer;

e) The applicant shall submit a written response to stipulations. The Response to Stipulations shall consist of a written response to the approved stipulations and five (5) copies of the P.A.D. document revised as necessary to comply with these approved stipulations. Said submission must be under one (1) transmittal package and shall be submitted within fifteen (15) days of City Council approval;

f) All infrastructure shall be constructed pursuant to the provisions of 16.20 of the Surprise Municipal Code or an approved development agreement, whichever applies;

g) A “will serve” letter will be required prior to issuance of any building permits;

h) All public notice signs shall be removed from the site immediately following final decision by the Planning and Zoning Commission or City Council as applicable. A signed Affidavit of Sign Removal shall be included within the Stipulation Response Package.
August 2, 2005

Mr. Mark Voigt
Voyager Investment Properties
6900 East 2nd Street, Suite 100
Scottsdale, AZ 85251

File Number: 2005-01497-AP

Dear Mr. Voigt:

Reference is made to your agent's letter dated May 26, 2005 in which you inquired as to whether or not a Section 404 permit is required from the U.S. Army Corps of Engineers to construct Tierra Verde residential development. This proposed project is located within 190 acres of land at Happy Valley Road and Recess Road (Sections 5 and 6, T4N, R1W), Maricopa County, Arizona.

Based on the information furnished in the letter (referenced above), we have determined that your proposed project is not subject to our jurisdiction under Section 404 of the Clean Water Act. Since there are no waters of the United States within the aforementioned proposed project area, no Section 404 permit is required from our office.

The receipt of your request is appreciated. If you have questions, please contact Ann Palaruan at (602) 640-5385 x 227.

Sincerely,

"ORIGINALLY SIGNED BY"

Cindy Lester P.E.
Chief, Arizona Section
Regulatory Branch

Copy Furnished:
(Without Enclosure)

Ms. Christina Dilley
Coe & Van Loo Consultants, Inc.
4550 North 12th Street
Phoenix, Arizona 85014-4291